Victoria Regia

A bottle containing 12 seeds of the plant was kindly sent from Sir Wm. J. Hooker per Steamer Asia on the 20th March 1851—

21st March placed four seeds in a small tank of water in the forcing House each seed being planted separately in a small seed pan in sand and loam with a piece of soft brick— The tank was heated by a circulation of hot water produced by a copper boiler being placed upon the furnace, and an inch lead pipe passing from it round the inside of the tank, which was 5 ft 6 in diameter— A coil of ¾ inch lead pipe, of about 50 ft. in length, was also placed over the brick work upon the furnace in order to temper the water intended to supply the tank. This stopped on a small tap which agitated the water, and dissipated the vegetable mucus or slimy matter which accumulates around the inside boarding of the tank and sometimes upon the edges of the leaves of the Victoria after it commenced growing—

On the 10th April, twenty days after the seeds were planted, one of them exhibited signs of growth shooting up a small spear shaped leaf something like a young blade of grass—

14th The matter of the seeds germinated & this plant was No 1

17— A leaf of a long narrow form shaped something like the blade of a knife made its appearance in the first plant No 1

21— A second leaf of like form was discovered— This we call in our journal a third leaf—

25th— The fourth leaf has reached the surface of the water and is in shape of an oval form ellipsis—

May 3rd — 5th leaf is now growing —
— 6th — this last leaf appears nearly round diameter 3/8 in
— 9 — 6th leaf appears which is quite round — 3 3/8 —
at matrix it reached
— 16 — 7 — — — — — — — — — — — 4 1/4 —
— 23 — 8 — — — — — — — — — — — 4 1/2 —
— 28 — 9 (24th placed the plant in the great tank in the Lily House — 5 —
— 30 — 10 — — — — — — — — — — — 6 1/4
June 3 — 11 (On the 2nd Inst of this month the third leaf terminates — 9 —
and it was this second that the 4th one has eaten)
4 — 12 — — — — — — — — — — — 9 —
10 — 13 — — — — — — — — — — — 12 1/4
13 — 14 — — — — — — — — — — — 14 3/4
16 — 15 — — — — — — — — — — — 18
20 — 16 — — — — — — — — — — — 21 1/2
25 — 17 (21st of this month elapsed with five leaf) — 29
29 — 18 — — — — — — — — — — — 3 ft 1 in. ~~2 ft 10 1/2~~
July 3rd — 19 — — — — — — — — — — — 3 ft 6 in. — 42 —
9 — 20 — — — — — — — — — — — 3 — 10 — 46
13 — 21 — — — — — — — — — — — 4. 4 —
18 — 22 — — — — — — — — — — — 4. 9 1/2
22 — 23 — — — — — — — — — — — 5. 2 1/2
27 — 24 — Salver edge — — — — — 5. 8 1/2
31 — 25 — — — — — — — — — — — 6. 4
Aug 6 — 26 — — — — — — — — — — — 6. 5
10 — 27 — — — — — — — — — — — 6. 6
13 — This morning we discovered to our great delight
a flower bud rising — A little in advance of it
the 28th leaf was approaching the surface — The
latter presents a dark object, whilst the former
appears of a Crimson hue through seemed
inches deeper in the water —
15 — 28th leaf reaches the surface this day —
17 — Flower bud is now partly above the surface

PHHOR

May 24 I placed the plant in the big tank in the Lily House – It had it's eight leaf on – The largest leaf measured about 14 inches at this time –

28 – 9th leaf

30 – 10th " "

June 3 – 11 " "

" 4 – 12 " "

" – ~~14~~ – "

" 18 – 14 – " – 14 3/4 in –

" 21 – 15th " – dispersed with five leaves

" 23 – " – 19 in

" 26 – 16th " – ~~24 in~~

" ~~25~~ 27 – ~~27~~ – new leaf measures to day 16 1/2 the old one, it's immediate predecessor measures 21 1/2 –

29 – new leaf 24 inches – Another leaf is appearing to surface –

30 – Leaf measures this morning 27 inches – a new leaf 18th leaf reached the surface this afternoon –

July 1 Largest leaf 28 1/2 in – new leaf is expanding beautifully the petiole is very large being more than double the size of it's predecessor –

3 – The new leaf has attained the size of the preceding one which is about 29 1/4 inches in diameter – Another leaf is near the surface – It is not impossible

that the plant will bloom before the month is out perhaps in a fortnight — To day we are transpring the Orchids to the Lily House preparatory to some repairs being done to the ~~f~~ Orchidaceous house —

July 4th — The new leaf has expanded very much since yesterday. The Gardener reports that it measures this evng. 3 1/4 inches in diameter — The rising leaf noted yesterday is partly above the water this evng —

7th. The largest leaf now measures 36 inches — The new leaf (No 19) has expanded rapidly, and now measures more than two feet in diameter — Another leaf is approaching the surface, and will be up to-morrow —

P.P.HOR

Augt 19th — Two other flower buds are visible — The first one, which was discovered on the 13th inst, now fully above the water ~~and~~ but does not promise to open for a day or two —

21st — At 5 Oblock P. M. the flower began to open, and at dark it had expanded, so as to exhibit its numerous white petals — At 9 Oblock a large Solar Lamp was placed on one of the leaves, and moved to a position calculated to display the flower to the best advantage — This floating light house answered an admirable purpose —

The 29th leaf is up, and a flower bud close at its heels —

22nd — About half past 4 Oblock this afternoon the centre of the flower which opened yesterday began to throw open its pink petals which appear blotched, unlike any drawing that I have seen — when all the petals became completely reflexed — say in about 1½ to two hours the crown opened its beautiful anthers being the last stage of expansion — The flower was measured ~~by~~ by drawing a string from the extremity of one petal to that of another, across the crown of the flower when it found to be 15½ inches in diameter —

23 — All the petals have resumed their former or original erect posture, giving to the flower a tulip shape, and exhibiting a corresponding pink color — The flower seems to be closing rapidly — the calyx like the petals surrounding the interior part —

The second flower bud is ~~almost~~ partially above the water —

27 — The second flower opened this afternoon at about 5 Oblock — ~~It~~ It appeared larger than

the previous flower — It was visited by a large number of persons during the evening —

28th — Springbrook was quite a scene of excitement this afternoon and evening — Hundreds of persons were in attendance to witness the final development of the flower which commenced opening yesterday — The committee on plants and flowers of the Penn. Hort. Soc. were present, and measured the flower, which they pronounced to be 17 inches in diameter — Petals 7 in. in length — Stalk 3

The 30th. leaf was also expanding to day —

Sept. 1st — The third flower opened this afternoon between 5 and 6 o'clock —

2d — Some of the Ladies of the School of Design ~~visited~~ ~~maimed~~ at Springbrook to day to witness the final expansion of the flower which commenced blooming yesterday; and ~~if possible~~ to make an attempt at drawing it — Crowds of visitors throughd the grounds the whole day — The flower was cut and taken to the city by Mr. Hill Principal of the School — It did not appear as large as its predecessor —

The 31st. leaf was also unfolding its ~~beauties~~ to day —

3d — The fourth flower bud is now above the water —

8th — The fourth bud opened this afternoon at the usual hour. It appears very large and fully equal in size to any of its predecessors —

The 32d. leaf is also expanding upon the water —

11th — The 33d. leaf is expanding to day —

12th — This evening at the usual hour the 5th. flower bud opened. & which is the second in the same week — The weather has been intensely hot, the hottest of the season which accounts for the rapid development of the flower buds,

PPHOR

Victoria Regia

Sept. 15th. The Sixth flower had opened this evening notwithstanding our efforts to keep it back for the Hort. Soc. exhibition to commence on the 17th.

16th. I visited the City early this morning to ascertain the wishes of the Comt. in regard to the flower now open. It was agreed to commence the exhibition with it this evening at 7 O'Clock.

— I sent the flower to the City at 1 O'clock this afternoon, and also 4 leaves of the Plant the largest of which measd. 6½ feet. The smallest was the 34th. leaf which commenced opening yesterday —

19th — The 35th. leaf commenced expanding to day — In the evening the 7th. flower opened, which I conveyed to the Rooms of the Society, where it met with a cordial reception on the part of a large crowd of visitors —

22 — The 8th. Flower opened this evng., and at the same time the 36th. leaf began to open —

24 — We were surprised to find this morning that the flower which opened on the 22nd was quite fresh, so that I resolved on taking it to the Delaware Hort. Soc. Ex.; — together with two leaves from the Plant in the Kitchen Garden — On my arrival in Wilmington about 2 O'Clock P. M. I found the flower in fine condition —

27 — The 9th. Flower and 37th. leaf opened this evng —

Oct	1	The 10	38
	3	The 11	39
	7	12	40
	11	13	41
	15	14	42
	17	15	43
	21	16	44

Oct 26th — 17th Flower and 45th leaf opened this evening. The day was very stormy, the rain descending incessantly the whole day. The flower was cut and placed in spirits. But without advantage, an account of the preceding deliciency of the flower, and the coloring matter in the calyx and Capsule.

30th — 18th Flower and 46th leaf opened this evening.

Nov 2d — This morning we were greatly surprised to find that the 19th Flower was fully expanded, having at the usual hour on the preceding evening manifested no signs of opening. It passed through the second stage during the next ~~evening~~ night. The 47th Leaf was also on the surface at the same time.

4 — 6th — The 20th Flower and 48th leaf opened this evening. Owing to the very reduced temperature of the water in the Kitchen Garden Basin for the past fortnight the Victoria growing therein seemed materially affected, and going into a rapid decay. In consequence thereof the Sash was removed from the Basin, and the Core and crown of the plant taken up, placed in a small Box and conveyed to the aquarium. On examination two flower buds were visible.

9th — The 21st Flower opened this evening, and at the same time the 49th leaf reached the surface.

12th — 22nd Flower opened ~~this evening and the 50th leaf opened~~. 50th leaf has partially reached the surface.

15th — 23d Flower opened this evening but without the usual accompaniment of the leaf which appeared to be several inches below the surface. This is another indication of the decline of the Plant. The remains of the Plant removed from the Kitchen Garden have become entirely decayed.

P.PHOR

Nov 18th This evening the 24th Flower opened, and was exhibited at the State meeting of the Hort Society. The 51st leaf also reached the surface

23d This evening the 25th Flower opened, and the 52nd leaf also

26 The 26th Flower opened, and the 53d leaf reached the surface

Dec 1 The 27th Flower opened this evening

5 28th and 54th leaf

10 29th 55th

13 30

18 31 56

23 32 57 60

26 33 61

28 34 62

Jany 4 35 63

6 36 64

20 38

39

40

41

42

44

Memor concerning
the growth of the
Victoria Regia
at Kingston

Victoria Regia No 2—

Transferred this plant from the Lily House to the Basin in the Kitchen Garden

June 25th. 14 leaves on, the smallest measuring 8 inches, and the largest 14½—. A new leaf was also approaching the surface— Temperature of the Water 78

26— The plant seems to be doing well, though not making much progress— 14 leaves. Some check in transplanting no doubt— Leaves have been short of the usual supply of water in consequence of a derangement in one of the Rams, and the great demands for water on the part of the out door plants from the drought. The temperature of the water is 78. of the Atmosphere within the enclosure 95.—

27— No material change observable in the plant— The new leaf has partially expanded itself but does not indicate a favorable condition in all respects— Its contemporary in the Lily House is flourishing in the highest degree—

29— Plant is not doing very well for want of a sufficient quantity of fresh water— The tank or Basin leaks rapidly— The new leaf expands slowly Another is rising—

30— The water in the tank looks stagnant altho receiving its flow from the Lily House, & that the plant

seems quite stationary— The Gardener has reduced the quantity of soil so that the depth of water which has been but a few inches in the centre will be greater, He reports that the plant has made many roots—

July 31 The new leaf has reached the surface, and is expanding slowly— The unfavorable character of the water evidently hinders the progress of the plant—

Aug 3d— The Plant does not flourish, mainly I suppose for the want of fresh Water— It has rained to day but the quantity of Water which has in consequence flowed into the tank has been insufficient to raise it so as to throw off the green scum on the top which acts injudiciously on the plant—

4th— The condition of the plant is without any obvious change—

7th— A new leaf has come up, and lies upon the Water— It appears to be about a foot in diameter, It's immediate predecessor has made a full growth, and appears stationary, though the leaf is not larger than the old one—

13— Another leaf is up, but expands very slowly— The temperature of the water is evidently too low to accustom the plant to thrive rapidly— Whilst the leaves of No 1 in the Lily House have expanded very from 5 to 7 inches in diameter the roots of the plant have grown very little— The two leaves which have reached maturity since the plant was placed out of doors are very little larger than the largest leaf it had on its change of locality—

PPHOR

Victoria Regia at Springbrook

Caleb Cope manuscript growth record, 1851–1852

Source: SB63_C782ca_Cope18510321 (images 001–012) | Victoria Regia Transcription

About this document

This is a transcription of a twelve-page manuscript record of the cultivation and flowering of Victoria regia — the giant Amazonian water lily — at Caleb Cope's Philadelphia estate, Springbrook, in 1851. Cope, then President of the Pennsylvania Horticultural Society, received a bottle of twelve Victoria regia seeds from Sir William Jackson Hooker, director of the Royal Botanic Gardens, Kew, via the steamer Asia on March 20, 1851. This bundle of images appears to combine several related items: a continuous day-by-day growth log for the first seedling (images 001–002 and 005–009), tracking its leaves and, from August 21, its famous flowers through the winter; two leaves (images 003–004) covering much of the same May–July period in fuller narrative detail with precise leaf measurements, whose exact relationship to the main log — companion sheet, more detailed fair copy, or something else — is not certain from the images alone; a docket or wrapper leaf (image 010) reading "Memo[randum] concerning the growth of the Victoria Regia at Springbrook"; and a separate short memorandum headed "Victoria Regia No. 2" (images 011–012), tracking a second seedling that was transferred to a basin in the Kitchen Garden and fared considerably worse than its counterpart in the Lily House. The main log records the first flower opening on August 21, 1851 — Victoria regia's first documented flowering in the United States — and the excitement that followed: crowds at Springbrook, a formal measurement by the Society's Committee on Plants and Flowers (17 inches in diameter), a visit from students of the Philadelphia School of Design, exhibition of cut flowers and leaves at stated meetings of the Society, and a trip to exhibit a flower at the Delaware Horticultural Society in Wilmington. The log continues through at least the 36th flower and 44th leaf, into January of the following year.

Image 001 (SB63_C782ca_Cope18510321_001.tif)

Victoria Regia

A bottle containing 12 seeds of the plant was received by me from Sir Wm. J. Hooker per steamer Asia on the 20th March 1851.
21st March placed four seeds in a small tank of water in the forcing House, each seed being planted separately in a small seed pan, in sand and loam. The tank was heated by a circulation of hot water produced by a copper box being placed upon the furnace, and an inch lead pipe passing from it twice round the inside of the tank, which was 5 by 6 feet in diameter. A coil of ¾ inch lead pipe, of about 50 ft. in length, was also placed over the brick work upon the furnace in order to temper the water intended to supply the tank. This supplied a small wheel which agitated the water, and dissipated the vegetable mucus or slimy matter which accumulated around the edges of the tank and sometimes upon the edges of the leaves of the Victoria after it commenced growing.
On the 10th April, twenty days after the seed were planted, one of them exhibited signs of growth, shooting up a small spear, something like a young blade of grass.
14th Another of the seeds germinated; this plant we call No. 2.
17 — A leaf of a long narrow form, shaped something like the blade of a hellebore, made its appearance on the first plant.
21 — A second leaf of like form was discovered. This we call in our journal a third leaf.
25 — The fourth leaf has reached the surface of the water and is in shape of an ellipsis —

Image 002 (SB63_C782ca_Cope18510321_002.tif)

May 3 — 5th leaf is now growing —
6th — this last leaf appears nearly round, diameter 3⅝ in.
9 — 6th leaf appears, which is quite round, 3⅞ —
16 — 7 — do. — at maturity it reached 4¼ —
23 — 8 — do. — 4½
28 — 9 (24th placed the plant in the great tank in the Lily House) — do. — 5 —
30 — 10 — do. — 6¼
June 3 — 11 (On the 22nd of this month the third seed germinated, and it may be observed that the 4th one may rot away) — 9 —
7 — 12 — do. — 9 —
10 — 13 — do. — 12¼
13 — 14 — do. — 14¾

16 — 15 — do. — 18
20 — 16 — do. — 21½
25 — 17 (21st of this month dispensed with fire heat) — 29
29 — 18 — do. — 3 ft. 1 in. [figure altered, uncertain]
July 4th — 19 — do. — 3 ft. 6 in. — 42 —
9 — 20 — do. — 3 — 10 — 46
13 — 21 — do. — 4. 4 —
18 — 22 — do. — 4. 9½
22 — 23 — do. — 5. 2½
27 — 24 — salmon edge — do. — 5. 8½
31 — 25 — do. — 6. 4
Aug. 6 — 26 — do. — 6. 5
10 — 27 — do. — 6. 6
13 — This morning we discovered to our great delight a flower bud rising. A little in advance of it the 28th leaf was approaching the surface. The latter presented a dark object, whilst the former appeared of a crimson hue though several inches deeper in the water.
15 — 28th leaf reaches the surface this day.
17 — Flower bud is now partly above the surface

Image 003 (SB63_C782ca_Cope18510321_003.tif)

May 24th placed the plant in the big tank in the Lily House. It had its eighth leaf on. The largest leaf measured about 4½ inches at this time.
28 — 9th leaf
30 — 10 do.
June 3 — 11 do.
4 — 12 do.

18 — 14 do. — 14¾ in. —
21 — 15 do. — dispensed with fire heat
23 — 19 in.
26 — 16 do. — 21½
27 — 17 — new leaf measures today 16½; the old one, its immediate predecessor, measured 21½ —
29 — new leaf 24 inches. Another leaf is approaching the surface.
30 — Leaf measures this morning 27 inches. A new leaf, the 18th, reached the surface this afternoon.
July 1 — Largest leaf 28½ ins. New leaf is expanding beautifully; the petiole is very large, being more than double the size of its predecessor.
3 — The new leaf has attained the size of the preceding one, which is about 29¼ inches in diameter. Another leaf is near the surface. It is not improbable that the plant will bloom before the month is out, perhaps in a fortnight. Today we are transferring the Orchids to the Lily House preparatory to some repairs being done to the Orchidaceous house.

Image 004 (SB63_C782ca_Cope18510321_004.tif)

July 4th — The new leaf has expanded very much since yesterday. The gardener reports that it measures this evening 34¼ inches in diameter. The rising leaf noted yesterday is partly above the water this evening.
7th — The largest leaf now measures 36 inches. The new leaf [No. 19] has expanded rapidly, and now measures more than two feet in diameter. Another leaf is approaching the surface, and will be up tomorrow.

Image 005 (SB63_C782ca_Cope18510321_005.tif)

Aug. 19th — Two other flower buds are visible. The first one, which was discovered on the 13th, is now fully above the water but does not promise to open for a day or two.
21st — At 5 o'clock P.M. the flower began to open, and at dark it had expanded so as to exhibit its numerous white petals. At 9 o'clock a large solar lamp was placed on one of the leaves, and moved to a position calculated to display the flower to the best advantage. This floating light-house answered an admirable purpose.
The 29th leaf is up, and a flower bud close at its heels.
22nd — About half past 4 o'clock this afternoon the centre of the flower which opened yesterday began to throw open its pistillate petals, which appear blotched, unlike any drawing that I have seen. When all the petals became completely reflexed — say in about 1½ to two hours — the crown opened its beautiful anthers, being the last stage of expansion. The flower was measured by drawing a string from the extremity of one petal to that of another, across the crown of the flower, when it

proved to be 15½ inches in diameter.
23 — All the petals have resumed their former or original erect posture, giving to the flower a tulip shape, and exhibiting a preponderating pink color. The flower seems to be closing rapidly, the calyx like the petals surrounding the interior parts. The second flower bud is partially above the water.
27 — The second flower opened this afternoon at about 5 o'clock. It appeared larger than

Image 006 (SB63_C782ca_Cope18510321_006.tif)

the previous flower. It was visited by a large number of persons during the evening.
28 — Springbrook was quite a scene of excitement this afternoon and evening. Hundreds of persons were in attendance to witness the final development of the flower which commenced opening yesterday. The Committee on Plants and Flowers of the Penn. Hort. Soc. were present, and measured the flower, which they pronounced to be 17 inches in diameter. Petals 7 in. in length. Disk 3.
The 30th leaf was also expanding today.
Sept. 1st — The third flower opened this afternoon between 5 and 6 o'clock.
2nd — Some of the Ladies of the School of Design remained at Springbrook today to witness the final expansion of the flower which commenced blooming yesterday, and to make an attempt at drawing it. Crowds of visitors thronged the grounds the whole day. The flower was cut and taken to the city by Mrs. Hill, Principal of the School. It did not appear as large as its predecessor.
The 31st leaf was also unfolding today.
3 — The fourth flower bud is now above the water.
8th — The fourth bud opened this afternoon at the usual hour. It appears very large and fully equal in size to any of its predecessors.
The 32nd leaf is also expanding upon the water.
11th — The 33rd leaf is expanding today.
12th — This evening at the usual hour the 5th flower bud opened, which was the second in the same week. The weather has been intensely hot, the hottest of the season, which accounts for the rapid development of the flower buds.

Image 007 (SB63_C782ca_Cope18510321_007.tif)

Victoria Regia

Sept. 15th — The sixth flower bud opened this evening, notwithstanding our efforts to keep it back for the Hort. Soc. exhibition to commence on the 17th.
16th — I visited the city early this morning to ascertain the wishes of the Committee in regard to the flower now open. It was agreed to commence the exhibition with it this evening at 7 o'clock. — I sent the flower to the city at 5 o'clock this afternoon, and also 4 leaves of the plant, the largest of which measured 6½ feet. The smallest was the 34th leaf which commenced opening yesterday.
19th — The 35th leaf commenced expanding today. In the evening the 7th flower opened, which I conveyed to the rooms of the Society, where it met with a cordial reception on the part of a large crowd of visitors.
22 — The 8th flower opened this evening, and at the same time the 36th leaf began to open.
24 — We were surprised to find this morning that the flower which opened on the 22nd was quite fresh, so that I resolved on taking it to the Delaware Hort. Soc. Exhibition, together with two leaves from the plant in the Kitchen Garden. On my arrival in Wilmington about 2 o'clock P.M. I found the flower in fine condition.
27 — The 9th flower and 37th leaf opened this evening.
Oct. 1 — The 10th do. do. 38 do. do. do.
3 — The 11 do. do. 39 do. do. do.
7 — do. 12 do. do. 40 do. do.
11 — do. 13 do. do. 41 do. do.
15 — do. 14 do. do. 42 do. do.
17 — do. 15 do. 43 do. do.
21 — do. 16 do. 44 do. do.

Image 008 (SB63_C782ca_Cope18510321_008.tif)

Oct. 26th — 17th flower and 45th leaf opened this evening. The day was very stormy, the rain descending incessantly the whole day. The flower was cut and placed in spirits, but without advantage, on account of the exceeding delicacy of the flower, and the coloring matter in the calyx and capsule.
30th — 18th flower and 46th leaf opened this evening.
Nov. 2nd — This morning we were greatly surprised to find that the 19th flower was fully expanded, having at the usual hour

on the preceding evening manifested no signs of opening. It passed through the second stage during the next [word uncertain] night. The 47th leaf was also on the surface at the same time.
6th — The 20th flower and 48th leaf opened this evening. Owing to the very reduced temperature of the water in the Kitchen Garden basin for the past fortnight, the Victoria growing therein seemed materially affected, and going into a rapid decay. In consequence thereof the sash was removed from the basin, and the core and crown of the plant taken up, placed in a small box, and conveyed to the aquarium. On examination two flower buds were visible.
9th — The 21st flower opened this evening, and at the same time the 49th leaf reached the surface.
12th — The 22nd flower opened this evening and the 50th leaf opened.
[The 50th leaf has partially reached the surface.]
15th — The 23rd flower opened this evening but without the usual accompaniment of the leaf, which appears to be several inches below the surface. This is another indication of the decline of the plant. The remains of the plant removed from the Kitchen Garden have become entirely decayed.

Image 009 (SB63_C782ca_Cope18510321_009.tif)

Nov. 18th — This evening the 24th flower opened, and was exhibited at the Stated meeting of the Hort. Society. The 51st leaf also reached the surface.
23rd — This evening the 25th flower opened, and the 52nd leaf also.
26 — The 26th flower opened, and the 53rd leaf reached the surface.
Dec. 1 — The 27th flower opened this evening.
5 — The 28th do. and 54th leaf.
10 — The 29th do. 55th do.
13 — The 30 do.
18 — The 31 do. 56 do. [figure uncertain]
23 — The 32 do. 57 — 60
26 — The 33 do. — 61
28 — The 34 do. — 62

Jany. 4 — The 35 do. — 63
6 — The 36 do. — 64

[The remaining lines on this page are a leaf-count tally, badly faded and partly illegible: entries for the 21st (38), and undated entries reading 39, 40, 41, 42, and, on the 12th, 44.]

Image 010 (SB63_C782ca_Cope18510321_010.tif)

[Docket / wrapper leaf, mostly blank on this side. Endorsed in ink:]
Memo[randum] concerning the growth of the Victoria Regia at Springbrook
[The faint ruled and numbered marks visible across the rest of the sheet are offset (bleed-through) from facing pages pressed against it in storage, not independent writing on this leaf.]

Image 011 (SB63_C782ca_Cope18510321_011.tif)

Victoria Regia No. 2

Transferred this plant from the Lily House to the Basin in the Kitchen Garden.
June 25th — It had 5 leaves on, the smallest measuring 8 inches, and the largest 14½. A new leaf was also approaching the surface. Temperature of the water 78.
26 — The plant seems to be doing well, though not making much progress. It has met with some check in transplanting no doubt. It has moreover been short of the usual supply of water in consequence of a derangement in one of the Rams, and the great demand for water on the part of the outdoor plants from the drought. The temperature of the water is 78, of the atmosphere within the enclosure 95.
27 — No material change observable in the plant. The new leaf has partially expanded itself but does not indicate a very favorable condition in all respects. Its contemporary in the Lily House is flourishing in the highest degree.
29 — Plant is not doing very well for want of a sufficient quantity of fresh water. The tank or basin leaks rapidly. The new leaf expands slowly. Another is rising.
30 — The water in the tank looks stagnant, although receiving the flow from the Lily House, so that the plant

Image 012 (SB63_C782ca_Cope18510321_012.tif)

seems quite stationary. The gardener has reduced the quantity of soil so that the depth of water, which has been but a few inches in the centre, will be greater. He reports that the plant has made many roots.
July 1 — The new leaf has reached the surface, and is expanding slowly. The unfavorable character of the water evidently hinders the progress of the plant.
July 3rd — The plant does not flourish, mainly I suppose for the want of fresh water. It has rained today but the quantity of water which has in consequence flowed into the tank has been insufficient to raise it so as to throw off the green scum on the top, which acts prejudicially on the plant.
4th — The condition of the plant is without any obvious change.
7th — A new leaf has come up, and lies upon the water. It appears to be about a foot in diameter. Its immediate predecessor has made a full growth, and appears stationary, though the leaf is not larger than the old one.
13 — Another leaf is up but expands very slowly. The temperature of the water is evidently too low to allow the plant to thrive rapidly. Whilst the leaves of those in the Lily House have expanded on some days from 5 to 7 inches, those of the plant have grown very little. The two leaves which have reached maturity since the plant was placed out of doors are very little larger than the largest leaf was on its change of locality.

Notes on uncertain readings and manuscript structure

This manuscript is heavily revised throughout, with frequent interlinear insertions and struck-through words; the readings given here are the final, corrected text unless otherwise noted. A few specific points remain uncertain. On image 001, an early clause describing the seed pan and soil mixture was revised in the manuscript itself (a phrase resembling “with a sufficiency of heat” was struck through and not clearly replaced); the transcription here follows the sentence as it reads after the deletion. On image 002, the altered figure at the June 29 entry (“3 ft. 1 in.”) has a further correction above it that could not be read with confidence. On image 008, a word describing the duration over which the 19th flower's second stage occurred (possibly “fortnight”) is struck through and illegible. The tally of flower and leaf numbers on the lower portion of image 009 is faded and its columns are hard to align with confidence; the figures given should be checked against the original image for any use requiring precision. Several plant names and measurements elsewhere (e.g., leaf diameters given only as fractions) are transcribed as best read; the handwriting is generally a clear, practiced hand, and most entries are unambiguous.

On the relationship between images 003–004 and the main log (images 001–002, 005–009): the narrative on 003–004 covers May 24 through July 7, a span already logged in compressed, tabular form on image 002 (through August 17) before the main narrative resumes seamlessly on image 005 (“Aug. 19th”). Images 003–004 appear to be a separate, more detailed account of the same weeks — richer in prose and precise leaf measurements — rather than a continuation of the main sequence; their exact function (a companion record, a fair copy, notes kept by a different hand for the same period) is not determinable from the images alone and is presented here as an open question rather than a resolved one. The lower half of image 004 shows faint mirrored marks consistent with ink bleed-through or offset from an adjacent sheet in storage, not independent text, and has not been transcribed as such.